AMI Irrigation Controller: Field Installation, Programming and User Guide
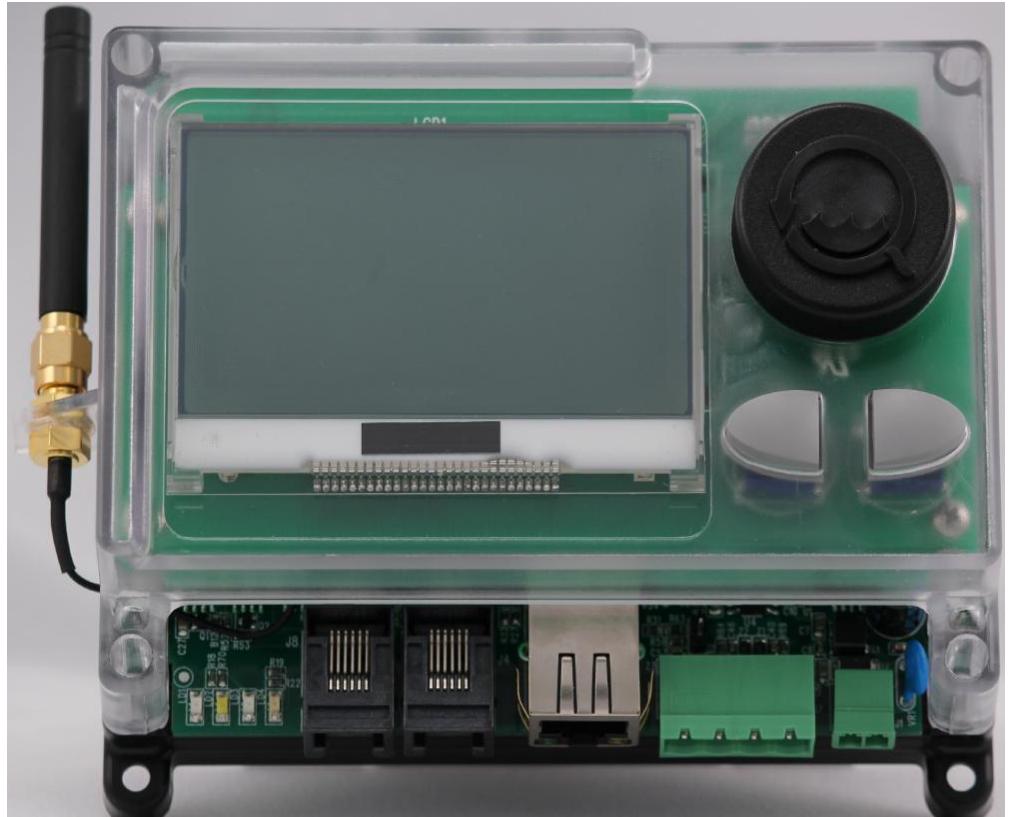

AMI

Version 3.2

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Welcome to the AMI Irrigation Controller

Welcome to your new Aqua Management Irrigation Controller. Although we recommend all changes be done through our cloud interface, this guide will give you instructions on how to make manual changes through the Vapor.

The newly designed display screen gives you more options than ever before. From the controller's Home Screen you can now: Run Manual Stations, Run Manual Programs, Monitor Controller Operation and perform Setup options such as setting the Date and Time, set Programs, set Irrigation and your Flow Parameters.

Cabinet Installation

Before you begin operating the Aqua Management Irrigation Controller, you must install the cabinet. Here are the specs for our cabinet enclosure. Dimensions may change depending on if your controller is a 12, 24, 36 or 48 station controller.
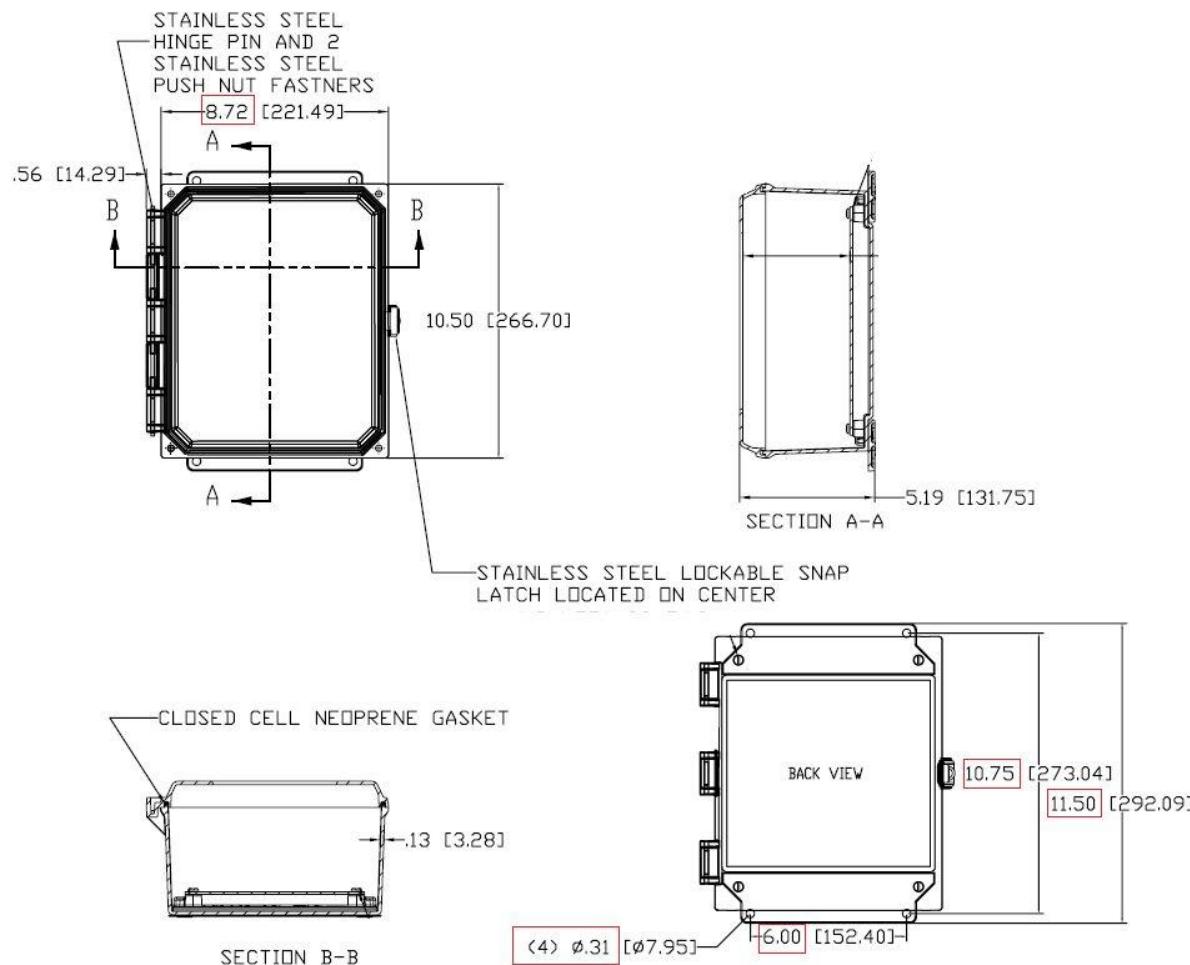
Installation cont…

You will want to make sure you are installing the cabinet in a location that has an available 110V power supply nearby.

We intentionally ship our controller cabinets without pre-drilled holed due to the fact that each installation is different. You, the contractor, know what size holes you would like and where better than we do, so we let you determine size and placement.

To drill your hole you will need the following tools:

Before you drill into the enclosure, you must first remove the controller to prevent unnecessary damage. To remove the unit from its enclosure, remove the four screws at the corners and remove the unit.

After you have finished drilling, reinstall the controller inside the cabinet.

Control Features

Front View

Cellular Antenna

Selector Knob

"Back" Button

Display Screen

"OK" Button

Indicator Lights

TTL Connector

Modbus Connector

Ethernet Port

Input Connectors

Power Connection 12VDC

Top View

Bootloader Connector

Mini USB Connector

Program Switch

Sim Card Slot

Cellular Antenna
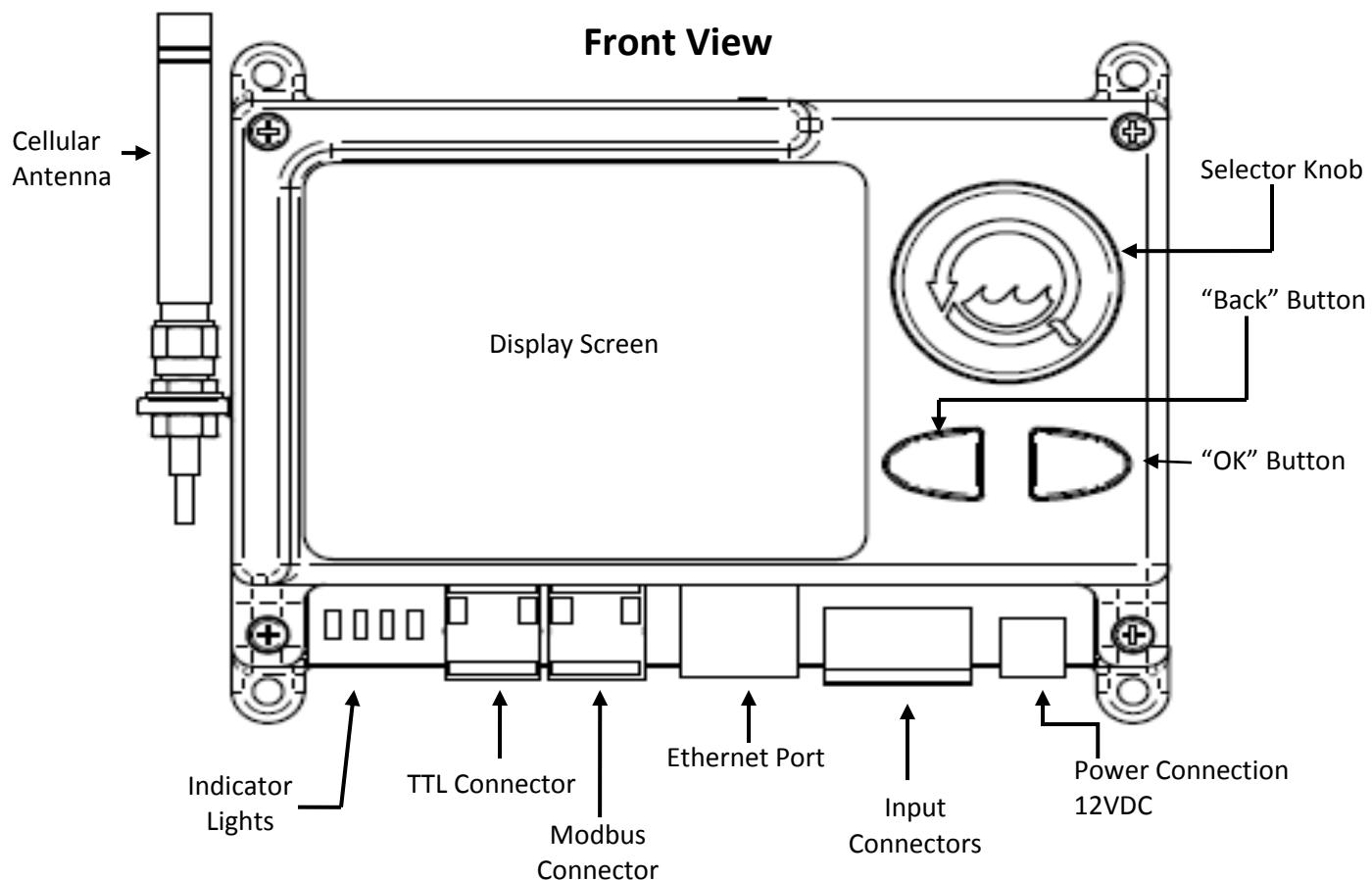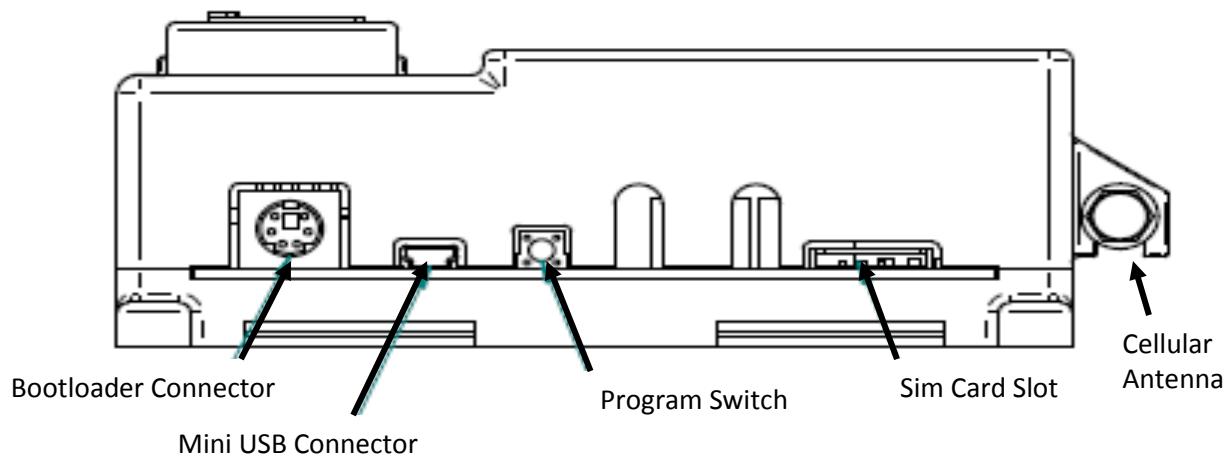
Home screen

The Home screen displays four (4) different options and is your gateway to all features.

```
> Manual   Station

  Manual   Program

  Monitor

  Setup
```
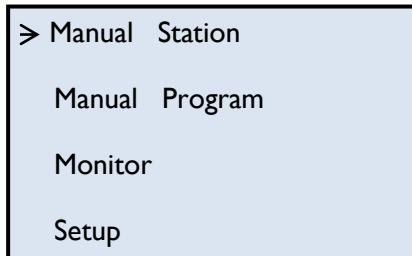
Running Manual Stations

To **START** and **STOP** individual stations from the controller, from the Home Screen, turn Select Knob until the arrow is in front of **Manual Station** then click the OK button. From this screen you can start and stop individual stations on the controller.

 To **START** individual stations:
   1. Using the Select Knob, move arrow in front of **Manual Station** and click the OK button
   2. Turn Select Knob to increase/decrease station number to desired station and click the OK button
   3. Turn Select Knob until arrow is in front of **[Minutes]** then click the OK button
   4. Arrow will move from the right to the left side of the display
   5. Turn Select Knob to increase/decrease minutes to desired setting and click the OK button
   6. Turn Select Knob until arrow is in front of **Start** then click OK button one time to select
   7. Arrows will appear on both sides of **Start**, and the station light will light up on Aqua Logic board
   8. Repeat steps 2-6 for each station you wish to start manually, up to max station threshold

 To **STOP** individual stations:
   1. After selecting desired station, turn Select Knob until arrow is in front of **Stop** then click OK button to select
   2. Arrows will appear on both sides of **Stop**, and the station light will turn off on Aqua Logic board
   3. Repeat step 1 for each station you wish to stop manually

To exit back to the Home Screen, click the Back button at any time.

Running Manual Programs

To **START** or **STOP** a Program from the controller, from the Home Screen, turn Select Knob until the arrow is in front of **Manual Program** then click the OK button. From this screen you can start and stop programs assigned to the controller from the computer interface.

To **START** a Program:
1. Turn Select Knob until arrow is in front of **Manual Program** then click the OK button
2. Arrow will move from left to right side of the display
3. Turn Select Knob to select the desired program and click the OK button
4. Arrow will move from right to left side of the display
5. Turn Select Knob until arrow is in front of **START** then click OK button to activate Program

To **STOP** a Program:
1. Turn Select Knob until arrow is in front of **Manual Program** then click the OK button
2. Arrow will move from left to right side of the display
3. Turn dial to select the desired program
4. Click the OK button to select
5. Turn Select Knob until arrow is in front of **STOP** then click OK

To exit back to the Home Screen, click the Back button at any time.

Monitoring your Controller

The **Monitor** screen allows you to observe what is currently happening on everything attached to your controller. You cannot make changes from this screen.

To monitor the system, from the Home Screen, turn the Select Knob until arrow is in front of **Monitor** and click the OK button.

From this screen you can monitor:

✓ Controller Date and Time
✓ If your Irrigation is Enabled or Disabled
✓ Flow rate from attached Flow Meters
✓ Programs running (**P.Auto**: or **P.Manual:**)
✓ Stations running (**S.Auto:** or **S.Manual:**)

To update the screen at any time, turn the Select Knob in any direction.

System Setup

You can use the **Setup** screen to set the irrigation parameters directly into the controller. While it may be easier to set these up from our user interface, the Vapor gives you the option to do it at the controller.

To access the Setup features, from the Home Screen, turn Select Knob until arrow is in front of **Setup** and click the OK button.

From the Setup screen you can:

- ✓ See Communication info
- ✓ Set Date and Time
- ✓ Set Programs
- ✓ Set Irrigation Parameters
- ✓ Set Flow Parameters
- ✓ Setup Q's
- ✓ Enable and disable irrigation

Comm

From the **Setup** screen, Turn the Select Knob until arrow is in front of **Comm** and click the OK button

This screen will give you the following information:

- ✓ Unit ID
- ✓ MAC Address
- ✓ RSSI (reception strength)
- ✓ Carrier
- ✓ APN
- ✓ IP Address
- ✓ Port
- ✓ Online/Offline Status

Date and Time

Set ting Date and Time

1. Turn the Select Knob until arrow is in front of **Date Time** and click the OK button
2. Turn the Select Knob until arrow is in front of **Hour** (military time) and click the OK button
3. Turn the Select Knob to reach desired hour and click the OK button to accept
4. Repeat process for **Hour**, **Second**, **Month**, **Day**, **Year** as necessary
5. Click on the Back button to return to **Setup** screen

This screen will also give you the current application version and date of the most recent update.

Setting Programs

Selecting Program

1. Turn the Select Knob until arrow is in front of **Programs** and click the OK button
2. Turn the Select Knob until arrow is behind **Setup Program** and click the OK button
3. Turn the Select Knob until you have selected which **Program** you would like to change or set (A,B,C,D,E,F,G,H) and click the OK button

Setting Watering Days

1. From the **Programs** screen, turn the Select Knob to the first desired day you want to assign to the Program and click the OK button
2. Turn the Select Knob to change the day from all lower case letters to all upper case letters (**m** = not assigned; **M** = assigned) and click the OK button.
3. Repeat steps 1 & 2 for each day you want to water

Setting Start Times

1. From the **Programs** screen, turn the Select Knob to **Start Times** and click the OK button
2. Set the **HH:MM** by using the Select Knob to move the arrow to the appropriate spot and clicking the OK button (hours and minutes will need to be adjusted separately)
3. Turn the Select Knob until desired **HH:MM** is displayed and click the OK button
4. Repeat steps 2 & 3 to set up to 12 individual Start Times
5. Click the Back button to return to Setup Program screen

Setting Run Times

1. From the **Programs** screen, turn the Select Knob to **Run Times** and click the OK button
2. Use the Select Knob to select the desired Station (**Stat**) **HH:MM** and click the OK button
3. Turn the Select Knob to change **HH:MM** to desired setting and click the OK button
4. Repeat steps 2 & 3 for each station you want assigned to your program
5. Click the Back Button to return to Setup Program screen

Assigning a Master Valve to Program

1. From the **Programs** screen, turn the Select Knob to **MV:** and click the OK button
2. Turn the Select Knob until you have selected the appropriate Master Valve (1 or 2) and click the OK button

Enabling/Disabling Program

1. To Enable or Disable a Program, from the **Programs** screen, turn Select Knob to Enabled and click the OK button
2. Turn the Select Knob until the desired setting is shown (- = Enabled, X = Disabled) and click the OK button

!Note! *You can Upload Program changes made in the field to the user interface via* www.icontrolport.com. *Please review the* User Guide and Programming Manual *for more details*

Setting Irrigation Parameters

To access Irrigation Parameters, from the **Setup** screen, turn Select Knob until arrow is in front of **Irrigation params** and click the OK Button

From the Irrigation Parameters screen you can:

✓ Enable/Disable Irrigation
✓ Assign Flow Meter inputs
✓ Assign Master Valves as Normally Open or Normally Closed
✓ Set Max Valves
✓ Assign Stations to your Master Valves

Enable/Disable Irrigation

1. From the **Setup Irrigation** screen, turn the Select Knob to **Enabled** and click the OK button
2. Turn the Select Knob to set desired setting (**+** = Enabled, **--** = Disabled)
3. Click the OK button to return to the **Setup Irrigation** screen

Assign Flow Meter to Input

1. From the **Setup Irrigation** screen, turn the Select Knob until arrow is to the right of and facing **F1input** and click the OK button
2. Turn the Select Knob until desired input number is displayed
3. Click the OK button to select
4. Repeat steps 1 thru 3 for **F2input** if applicable

Note: Q inputs will be represented by numbers 4-11

Assign Master Valves as Normally Open or Normally Closed

1. From the **Setup Irrigation** screen, turn the Select Knob until the arrow faces the **--** on **MV1:** or **MV:2**, depending on which Master Valve you want to select, and click the OK button
2. Turn the Select Knob to select the station the Master Valve is assigned to and click the OK button
3. Turn the Select Knob until the arrow faces **Normally Open** (*may display* **Normally Closed** *if previously changed*) and click the OK button
4. Turn the Select Knob until the desired setting is obtained and click the OK button

Set Max Valves

1. From the **Setup Irrigation** screen, turn the Select Knob to **Max. Valves Open** and click the OK button
2. Turn the Select Knob to select the desired number of valves
3. Click the OK button to return to the **Setup Irrigation** screen

Assign Stations to your Master Valves

1. To assign individual stations to different Master Valves, from the **Setup Irrigation** screen, turn the Select Knob to **MV station assign** and click the OK button
2. Turn the Select Knob to position the arrow to the right of the desired station and click the OK button
3. Turn the Select Knob to assign the station to select **MV: 1**, **MV: 2** or **--** and click the OK button
4. Repeat steps 2 & 3 for each station as necessary
5. Click the Back button to return to the **Setup Irrigation** screen

Setting Flow Parameters

To access Flow Parameters, from the **Setup** screen, turn the Select Knob until arrow is in front of **Flow params** and click the OK button

From the Flow Parameters screen you can:

- ✓ Assign volume unit (Gallons, Cubic Meter or Liter)
- ✓ Assign flow unit (GPM, Cubic Meter/hour, Liter/minute, Liter/hour)
- ✓ Set flow meter register reading (1 pulse = Gallon, Cubic Meter or Liter)

To assign volume units:

1. From the **Setup Flow** screen, turn the Select Knob until arrow is left of **Vol. unit:** and click the OK button
2. Turn the Select Knob until the desired volume unit is displayed
3. Click the OK button to select

To assign flow units:

1. From the Setup Flow screen, turn the Select Knob until arrow is left of **Flow unit:** and click the OK button
2. Turn the Select Knob until the desired flow unit is displayed
3. Click the OK button to select

To set flow meter register reading:

1. From the Setup Flow screen, turn the Select Knob until arrow is left of **1 Pulse =** and click the OK button
2. Turn the Select Knob until the desired unit is displayed
3. Click the OK button to select

!Note! *You can Upload Flow Parameter changes made in the field to the user interface via* www.icontrolport.com. *Please review the* **User Guide and Programming Manual** *for more details*

Field Support Tips

If your unit is not connecting online, you should check the unit in the field.

- ✓ If it has power, power the unit off then on
- ✓ If it is still offline, check the unit's **RSSI** (See System Setup/Comm)
  - o 1-5 = very poor
  - o 6-8 = poor
  - o 9-11 = good
  - o > 12 = best
- ✓ At the bottom of the Comm screen, you will see the unit either **Offline** or **ONLINE**

Note: If the unit has power, the last scheduled programs will continue to run as programmed even if the unit fails to come online. You will not, however, receive alerts or have the ability to communicate with the device.

Support

For additional support, contact our support team at:

(888) 280-2060

support@aquamanagement.com